(FILE 'HOME' ENTERED AT 11:14:18 ON 07 OCT 2003)

FILE 'MEDLINE, BIOSIS, CAPLUS, EMBASE' ENTERED AT 11:14:44 ON 07 OCT 2003

```
L1        751163 S MATERNAL OR PATERNAL OR FETAL
L2        219511 S EPIGENETIC OR METHYLAT? OR HYPERMETHYLAT?
L3       9427271 S 1 AND 2
L4       5273111 S 1 (5A) 2
L5          1191 S L1 (5A) L2
L6           148 S L1/TI (5A) L2/TI
L7            51 S L6 AND (DIFFEREN?)

=>
```

LIFE SCIENCE DICTIONARY

Search Results

Search Terms: AND **Search Definitions:**

◉ Contains this ○ Begins with this

Find Words! Clear Form

Searching Category	User input query
Searched Word	epigenetic
Number of Results	**2**

1. 1. **epigenetic**
   Definition:
   Describes something which influences the behavior of a cell without directly affecting its DNA or other genetic machinery, such as an environmental effect.

   2. **epigenetic changes**
   Definition:
   Any changes in an organism brought about by alterations in the action of genes are called epigenetic changes. Epigenetic transformation refers to those processes which cause normal cells to become tumor cells without the occurrence of any mutations.

END

h b ech c b e e e ch c e ch h b e ge e c e c

L7 ANSWER 44 OF 51 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2001160099 EMBASE

TITLE: Maternal and **paternal** chromosomes 7 show **differential methylation** of many genes in lymphoblast DNA.

AUTHOR: Hannula K.; Lipsanen-Nyman M.; Scherer S.W.; Holmberg C.; Hoglund P.; Kere J.

CORPORATE SOURCE: K. Hannula, Department of Medical Genetics, Haartman Institute, Haartmaninkatu 3, Helsinki, Finland. katariina.hannula@helsinki.fi

SOURCE: Genomics, (1 Apr 2001) 73/1 (1-9).
Refs: 39
ISSN: 0888-7543 CODEN: GNMCEP

COUNTRY: United States

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 022 Human Genetics

LANGUAGE: English

SUMMARY LANGUAGE: English

AB Genomic imprinting, the **differential** expression of paternal and maternal alleles, involves many chromosomal regions and plays a role in development and growth. **Differential** methylation of maternal and paternal alleles is a hallmark of imprinted genes, and thus methylation assays are widely used to support the identification of novel imprinted genes. Either blood or lymphoblast DNAs are most often used in these assays, even though methylation levels may change in cell culture. We undertook a systematic survey of parent-of-origin-specific methylation of chromosome 7 genes and ESTs by comparing DNA samples from cases of maternal and paternal uniparental disomy for chromosome 7 using DNA from fresh blood and lymphoblast cell lines. Our results revealed that up to 41% of genes and ESTs show parent-of-origin-specific methylation **differences** in lymphoblast DNA after only a short time in culture, whereas methylation **differences** were not seen in blood DNA. The methylation changes occurred most commonly on paternal chromosome 7, whereas alterations on maternal chromosome 7 were more infrequent and weaker. These findings indicate that methylation patterns may change significantly during cell culture in a parent-of-origin-dependent manner and suggest that methylation is maintained **differently** on maternal and paternal chromosomes 7. .COPYRGT. 2001 Academic Press.